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COMMERCIAL FERTILIZERS

By P. L. HIBBARD

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COMMERCIAL FERTILIZERS

BY P. L. HIBBARD

This bulletin comprises the results of the fertilizer inspection work of the California Fertilizer Control for the fiscal year ending June 30, 1918.

PURPOSE AND FUNCTIONS OF THE FERTILIZER CONTROL

The duty of the Fertilizer Control is: *

First: To issue certificates of registration to manufacturers and dealers who have complied with the law by filing a sworn statement of composition and sources of the fertilizers they wish to sell.

Second: To analyze these fertilizers as found in the open market and publish the results for the information of the public. If a manufacturer sells fertilizers which are materially below his guarantee in composition or value he is subject to prosecution and fine. By this means it is intended to insure to purchasers that the fertilizers they buy shall be substantially as good as represented.

By a study of the reports of analyses of fertilizers, the consumer should be able to determine whether the materials he buys are sold for a fair price, and whether he obtains fertilizers of the desired composition. In short, the function of the Fertilizer Control is to see that the manufacturer gives the consumer a square deal.

MAINTENANCE OF GUARANTEES

Every manufacturer is required by law to guarantee the percentage of nitrogen, phosphoric acid and potash in the fertilizers he sells. Owing to difficulties of sampling and analysis the law permits a maximum deficiency of 0.25% nitrogen, 1.00% phosphoric acid, 0.50% potash from the figures guaranteed. Greater deficiencies than these are regarded as infractions of the law, and are indicated in the report of analyses in black faced type.

Some manufacturers uphold their guarantees better than others. The following table is a condensed report of the deficiencies found in the main table of analyses. It summarizes the work done in this laboratory on each manufacturer's goods. The columns headed *Deficiencies—per cent of possible*, may be used for comparison of the various companies as to probability of meeting their guarantees. The other columns are necessary to show how these figures were obtained. In cases where very few analyses are reported for a manufacturer, the figures should be taken with caution, as perhaps not properly representative. When

* General Laws of California, Act 1157, Statutes of 1903, page 259 et seq.; approved March 20, 1903.

several samples of one manufacturer's goods were analysed the figures may be accepted as probably a fair indication of the reliability of his guarantee.

In general, manufacturers have more than maintained their guarantees, so that an average of all the analyses would show a substantial increase over the amount guaranteed.

MAINTENANCE OF GUARANTEES BY MANUFACTURER

Manufacturer	Number of brands sampled	Number of samples analyzed	Total number of guarantees on samples analyzed	Deficiencies			
				In guarantees		In valuation	
	No.	Per cent of possible	No.	Per cent of possible			
Agricultural Chemical Works	4	21	24	4	17	1	4
American Agricultural Chemical Co....	3	6	18	0	0	0	0
Anaheim Beef & Provision Co.....	1	3	6	0	0	0	0
Armour & Co.....	4	10	23	2	9	0	0
Rogers Brown & Co.....	3	8	16	1	6	1	12
California Fertilizer Works.....	1	1	3	0	0	0	0
Citrus Fertilizer Co.....	4	8	24	1	4	0	0
Cudahy Packing Co.....	2	3	7	3	....	1	....
Duffy's Guano Co.....	1	1	3	0	0	0	0
Fruit Growers Supply Co.....	1	5	10	3	30	1	20
General Fertilizer Assn.....	4	14	37	11	30	4	28
Germain Seed & Plant Co.....	1	1	1	0	0	0	0
Globe Grain & Milling Co.....	6	12	20	1	5	1	8
Hauser Packing Co.....	5	36	75	16	21	4	11
Oakland Meat & Packing Co.....	1	4	8	1	12	0	0
Pacific Bone Coal & Fertilizing Co.....	4	6	12	1	8	0	0
Pacific Guano & Fertilizer Co.....	24	72	169	14	8	1	2
Southern California Fertilizer Co.....	3	9	26	0	0	0	0
W. M. Warren Fertilizer Co.....	1	1	3	0	0	0	0
Western Meat Co.....	7	56	135	9	7	0	0

Owing to the possibility of misunderstanding, the figures for percentage deficiencies are not given in above table in cases where less than four samples were analyzed.

Fertilizers sold on Station analysis, and some others, are not given a valuation in the table of analyses, hence the number of such samples is deducted from the total number analyzed, in computing deficiencies in valuation.

SUMMARY OF DEFICIENCIES

In the analyses of the above samples, the following number of deficiencies greater than those allowed by law occurred:

Available phosphoric acid (total when available is not guaranteed).....	28
Total nitrogen.....	37
Potash.....	3
In Valuation.....	15

These deficiencies were found in 61 samples.

Of the total number of valuations reported in this bulletin 73% are above the amount guaranteed while 27% fall below.

MECHANICAL CONDITION OF FERTILIZERS

A good degree of fineness is one of the essential qualities of a good fertilizer. It may be assumed that the finer the material the higher the availability, hence the consumer should insist on having finely ground fertilizers. Unfortunately, some manufacturers are at times careless in regard to the fineness of their goods. The insistent demand of the consumer is the most effective means of correcting such carelessness.

Besides the low agricultural availability and the difficulty in applying coarse fertilizers, it is almost impossible to obtain adequately representative samples of such goods for analysis. This is a prolific source of dissatisfaction and disagreement between buyers and sellers. During handling and transportation a coarsely ground tankage will separate so that the top of the sack contains the coarser material, high in nitrogen, while the bottom contains the finer parts of bone, high in phosphoric acid. A mixture of coarse bone meal with sulfate of potash will separate into coarse bone at the top and excess of potash at the bottom.

One of the chief reasons for the existence of the fertilizer manufacturer is that he is better prepared than the farmer to grind and mix the goods he sells, and the farmer should insist that he do it well.

CAUTION IN REGARD TO LABELING FERTILIZER PACKAGES

The law expressly states that every package of fertilizer shall be accompanied by a plainly printed label giving the brand name, analysis, and source of the materials in the package. This requirement is not satisfactorily met by some manufacturers and dealers. Farmers are hereby cautioned that if they buy improperly or inadequately labeled fertilizers or goods not sold by properly registered dealers or their authorized agents they lose the protection afforded by the Fertilizer Control. Consumers should insist that fertilizer tags show plainly both the percentage and the derivation of each ingredient. A verbal state-

ment given by selling agent should not be accepted as adequate. The honest manufacturer is willing to guarantee his goods properly, and the farmer will best serve his own interests by dealing with no other.

FERTILIZER VALUATIONS

The calculations of the commercial values of the fertilizers here reported are made on the so-called unit basis. Such calculations consist simply in multiplying the number of per cent of each ingredient by the price per unit and adding the products. The sum thus obtained is the commercial value per ton at the prices used. If it is desired to use such calculations for determining the amount which should be paid for goods, or the rebate to which the buyer is entitled, owing to the goods delivered being below the guaranty, it can only be satisfactorily done if a definite price per unit has been agreed upon between buyer and seller. But for the mere purpose of showing the relative values of goods to guarantees, it is not at all necessary that the prices adopted should be the exact market prices. Thus it is that the Fertilizer Control in attempting to show the relation between values found and values claimed, uses a schedule which is admittedly only an approximately average of market values. Owing to market fluctuations, differences in cost of delivery at different points, and other causes, the obtaining of true average market prices is an impossibility. But if the reader will bear in mind the true purpose of the valuations reported, these will have served their turn and he will not be led to assume that the experiment station is dictating the prices at which goods shall be sold.

NOTE IN REGARD TO SCHEDULE OF VALUES

In view of the continued extraordinary increases in prices of fertilizers and of the chaotic condition of the market, we find it impossible again to prepare a schedule of prices by consultation of market reports as heretofore. Inasmuch, however, as such a schedule is necessary for comparative purposes, the following table of values has been prepared, based chiefly on known prices of recent sales in this state. These values are not to be taken as in any way representing actual present market prices, though they may sometimes approximate them. In the table of analyses the column "Value per ton" is given on the basis of station prices.

SCHEDULE OF VALUES FOR 1918-1919

	Per pound	Per unit
Nitrogen from blood.....	\$.31	\$6.20
Nitrogen from tankage and bone.....	.30	6.00
Nitrogen from sulphate of ammonia.....	.30	6.00
Nitrogen from nitrate of soda.....	.30	6.00
Phosphoric acid, available from rock super.....	.06	1.20
Phosphoric acid, total from bone or tankage.....	.06	1.20
Potash, water soluble.....	.20	4.00

SCOPE OF INSPECTION

During the year 302 samples of fertilizers and fertilizing materials have been received at this laboratory. Of this number 13 were sent by farmers under the two-dollar fee provision, 186 were taken by inspectors from purchasers' goods upon the request of the purchasers, and 78 were taken by inspectors from goods in the hands of agents and manufacturers. 25 samples of a miscellaneous nature are omitted from the tables.

The following classification may be made of samples reported in this bulletin:

Bat guano.....	6
Bird guano.....	1
Blood.....	11
Bone Meal.....	34
Complete fertilizer.....	87
Garbage tankage.....	7
Incomplete mixed fertilizer.....	47
Nitrate of soda.....	7
Sulphate of ammonia.....	1
Superphosphate.....	3
Tankage.....	73

REGISTERED MANUFACTURERS AND DEALERS

The following manufacturers and dealers in commercial fertilizers have obtained certificates of registration under the provisions of the California fertilizer law, for the fiscal year beginning July 1, 1917. A list is also given of the brands of fertilizers and fertilizer materials offered for sale by them. According to the sworn returns of dealers registered for the fiscal year ending June 30, 1917, their entire sales in the state amounted to 43,964 tons. Incomplete returns for the year ending June 30, 1918, indicate approximately 30,000 tons.

No dealer or manufacturer, except those who have certificates of

registration from the University of California, and their authorized agents, can legally sell fertilizers in this state. No person or company has any right to use any registration number except in connection with the firm name to which the registration certificate of such number has been issued; and no person or company to whom a registration number has been assigned has any right to give any other person or company permission to use said registration number; any number so used is a fraud. No agent has any right to use his principals' registration number in connection with his own name.

Agricultural Chemical Works, Los Angeles, Cal.

REGISTRATION No. 8

Bat Guano	Nitrate of Soda
Blood	Sulphate of Ammonia
Bone Meal	Sulphate of Potash
Fish Guano	Superphosphate
Gypsum	Tankage
Muriate of Potash	Special Mixtures to order

American Agricultural Chemical Co., California Works, Los Angeles, Cal.

REGISTRATION No. 1

Acid Phosphate	Bradley's Tree and Vine
Blood	Fish Meal
Bradley's California Vegetable	Nitrate of Soda
Bradley's Hay & Grain No. 1	Packers Fertilizer Assn. Special 4-10-½
Bradley's Hay & Grain No. 2	Raw Mineral Phosphate Rock
Bradley's Lawn	Sulphate of Ammonia
Bradley's Lemon Tree	Sulphate of Potash
Bradley's Nursery Stock	Tankage
Bradley's Orange and Lemon	Special Brands to order
Bradley's Special Nursery Stock	

Anaheim Beef and Provision Company, Anaheim, Cal.

REGISTRATION No. 88₁₁

Tankage

Rogers Brown & Co., Los Angeles, Cal.

REGISTRATION No. 85

Blood	Whale Bone Meal
Bone Meal	Whale Meat and Blood
Fish Meal	Whale Meat and Bone

Tankage

California Fertilizer Works, San Francisco, Cal.

REGISTRATION No. 3

Special Mixtures to order

Citrus Fertilizer Co., Los Angeles, Cal.

REGISTRATION No. 87

Blood	Nitrate of Soda
Bone Meal	Phosphate Rock
Doty's Fruiting	Sulphate of Ammonia
Doty's Nursery	Superphosphate
Fish Meal	Tankage
Fish Scrap	Special Brands to order
Guano	

Clark & Clark, El Monte, Cal.

REGISTRATION No. 93

Bird Guano

Cudahy Packing Co., Los Angeles, Cal.

REGISTRATION No. 79

A. & M. Superior Fish Meal	High Grade Fish Meal B
A. & M. Superior Brand Fish Meal	High Grade Tankage A, B
High Grade Blood	Low Grade Tankage
Low Grade Blood	Special Lawn
High Grade Fish Meal	Tankage Formula

Duffy's Guano Company, Pasadena, Cal.

REGISTRATION No. 91

Duffy's Guano

Duffy's Guano No. 2

Fruit Growers Supply Company, Los Angeles, Cal.

REGISTRATION No. 90

Blood	Tankage
Bone	Other Simples
Nitrate of Soda	

General Fertilizer Association, San Bernardino, Cal.

REGISTRATION No. 42

Bat Guano	G. F. A. Special
Bird Guano	Orange and Lemon No. 1
Blood	Tankage
Bone Meal	Special Mixtures to order
G. F. A. Root and Tuber	

Germain Seed and Plant Co., Los Angeles, Cal.

REGISTRATION No. 76

Blood and Bone	Nuvida Vegetable
Nuvida Lawn and Garden	

Globe Grain and Milling Co., Los Angeles, Cal.

REGISTRATION No. 83

Bat Guano	Packing House Tankage
Blood	Steamed Bone Meal
Bone Tankage	Sulphate of Ammonia
Cottonseed Meal	Superphosphate
Fish Meal	Tankage
Lawn and Garden	Whale Bone Meal
Nitrate of Soda	

Hauser Packing Co., Los Angeles, Cal.

REGISTRATION No. 33

High Grade Blood	Steamed Bone Meal
High Grade Tankage	Sulphate of Potash
Low Grade Tankage	Special Mixtures to order
Nitrate of Soda	

Hawaiian Fertilizer Co., Ltd., San Francisco, Cal.

REGISTRATION No. 19

Bone Meal	Nursery
Delta No. 1	Special Fall
Double Manure Salts	Special Spring
Dry Ground Blood	Sulphate of Ammonia
Fish Guano	Sulphate of Potash
Fruit and Vine	Superphosphate
Fruiting	Tankage
Muriate of Potash	Thomas Phosphate
Nitrate of Lime	Vegetable
Nitrate of Soda	Whale Guano

Mountain Copper Company, San Francisco, Cal.

REGISTRATION No. 28

Mococo 0-14-9	Mococo Superphosphate 0-17-0
Mococo 3-10-2	Nitrate of Soda
Mococo 3-10-5	Sulphate of Potash
Mococo 4-10-4	Special Mixtures to order.
Mococo 4.1-10-1.5	

Oakland Meat and Packing Co., Emeryville, Cal.

REGISTRATION No. 24

"Special"

Pacific Bone, Coal and Fertilizing Co., San Francisco, Cal.

REGISTRATION No. 14

Blood	Nursery Special
Bone Meal	Pomona Special
Citrona Special	Superphosphate
Flora Special	Sulphate of Ammonia
Lupin Special	Tankage
Nitrate of Soda	Special Formulas

Pacific Guano and Fertilizer Co., San Francisco, Cal.

REGISTRATION No. 4

Gaviota AJX	Gaviota S
Gaviota CJV	Gaviota TRK
Gaviota F&V	Gaviota VGR
Gaviota GG	Gaviota XLT
Gaviota HOP	Gromore
Gaviota IXL	Special Cropmaker
Gaviota N	Superphosphate Cresco
Gaviota OK	Superphosphate Pacific
Gaviota PNK	Special Mixtures to Order
Gaviota PP	

Pacific Wood and Coal Co., San Diego, Cal.
 REGISTRATION No. 53

Diamond BG Complete	Diamond Tankage
Diamond BG Lawn	Nitrate of Soda
Diamond Bone Meal	Phosphoric Acid
Diamond Fish Meal	

San Antonio Meat Co., Pomona, Cal.
 REGISTRATION No. 69

Tankage

Southern California Fertilizer Co., Los Angeles, Cal.
 REGISTRATION No. 89

Garbage Tankage

Union Superphosphate Co., San Francisco, Cal.
 REGISTRATION No. 31

Superphosphate, Cresco	Superphosphate, Pacific
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W. M. Warren Fertilizing Co., Covina, Cal.
 REGISTRATION No. 92

Bat Guano	Fish Meal
Bird Guano	Special I
Blood	SpeciaII II
Bone Meal	Tankage

Western Fertilizer Co., San Francisco, Cal.
 REGISTRATION No. 68

Wizard Wonder

Western Meat Co., San Francisco, Cal.
 REGISTRATION No. 11

Brands A, B, C, D,	Fair Green
Brand E Tankage	Lemon Special
Brand F Raw Bone	Nitrate of Soda
Brand G Steamed Bone	Odorless Lawn Dressing
Brand H Blood	Putting Green
Brand I Tankage	Sulphate of Potash
Brands K, L, M, O	Superphosphate
Brand R Special	Tankage
Brand S Special	Special Brands to Order

Wilson & Company, Los Angeles, Cal.
 REGISTRATION No. 64

High Grade Blood	Nursery Special
High Grade Tankage	Raw Bone Meal
Fish Meal	Steamed Bone Meal
Lawn and Garden	Superphosphate
Low Grade Tankage	Special Mixtures to Order
Nitrate of Soda	

Lab. No.	NAME AND ADDRESS OF MANUFACTURER OR DEALER, AND NAME OF BRAND	FROM WHOM OBTAINED	Value per ton
7251*	Agricultural Chemical Works, Los Angeles, Cal.		
7251*	Fine Ground Bone..... <i>Guaranteed</i>	S. G. Rossiter, Rialto.....	47.33 45.60
7352	Potato..... <i>Guaranteed</i>	Anaheim Citrus Fruit Assn., Anaheim.....	31.33 34.80
7093	Special..... <i>Guaranteed</i>	E. A. Moore, Redlands.....	45.68 44.40
7106	Special <i>Guaranteed</i>	E. A. Moore, Redlands.....	50.95 48.00
7107	Special.....	E. A. Moore, Redlands.....	35.09
7145	Special.....	J. M. Webster, Upland.....	32.56
7248	Special.....	J. D. Spenetta, Orange.....	34.98
7249	Special..... <i>Guaranteed</i>	J. D. Spenetta, Orange.....	34.37 33.60
7121	Special.....	G. A. Herdeg, Riverside.....	40.59
7122	Special.....	G. A. Herdeg, Riverside.....	40.87
7250	Special..... <i>Guaranteed</i>	J. D. Spenetta, Orange.....	40.34 40.80
7123	Special.....	G. A. Herdeg, Riverside.....	34.77
7146	Special.....	J. M. Webster, Upland.....	35.90
7246	Special.....	J. D. Spenetta, Orange.....	36.16
7351	Special..... <i>Guaranteed</i>	Anaheim Citrus Fruit Assn., Anaheim.....	35.18 36.00
7229	Special..... <i>Guaranteed</i>	Anaheim Citrus Fruit Assn., Anaheim.....	33.00 32.00
7230	Special..... <i>Guaranteed</i>	Anaheim Citrus Fruit Assn., Anaheim.....	30.96 31.20
7247	Special.....	J. D. Spenetta, Orange.....	38.52
7097	Special..... <i>Guaranteed</i>	G. A. Herdeg, Riverside.....	40.66 38.40
7266	Special..... <i>Guaranteed</i>	H. A. Lake, Garden Grove.....	30.84 28.80
7357	Special..... <i>Guaranteed</i>	R. T. Nelson, Upland.....	37.68 36.00
American Agricultural Chemical Co., Los Angeles, Cal.			
7114	Bradley's Calif. Vegetable..... <i>Guaranteed</i>	E. M. Cope Commercial Co., Redlands.....	36.91 34.64
7115	Bradley's Lawn.....	E. M. Cope Commercial Co., Redlands.....	36.56
7118	Bradley's Lawn.....	G. L. Winterbotham, Riverside.....	36.36
7271	Bradley's Lawn..... <i>Guaranteed</i>	Morris & Snow Seed Co., Los Angeles.....	36.39 34.68
7116	Bradley's Nursery Stock.....	E. M. Cope Commercial Co., Redlands.....	37.22
7117	Bradley's Nursery Stock..... <i>Guaranteed</i>	G. L. Winterbotham, Riverside.....	36.02 34.68
Anaheim Beef & Provision Co., Anaheim, Cal.			
7244*	Tankage..... <i>Guaranteed</i>	Manufacturer's Warehouse.....	48.43 46.37
7245*	Tankage..... <i>Guaranteed</i>	Manufacturer's Warehouse.....	47.04 25.38
7306*	Tankage..... <i>Guaranteed</i>	Perkins Bros., Santa Ana.....	49.13 43.20
Armour Fertilizer Works, Los Angeles, Cal.			
7063*	Bone Meal..... <i>Guaranteed</i>	Azusa Foot-Hill Citrus Assn., Azusa.....	46.18 46.08

*7251—46% fine.
*7244—73% fine.
*7245—71% fine.
*7306—83% fine.
*7063—66% fine.

NOTE. See page 152 for text referring to table of analysis

PHOSPHORIC ACID					NITROGEN					POTASH			
Lab. No.	Avail- able	In- soluble	Total	Guaranteed as derived from	In Ni- trates	In Am- monia Salts	Or- ganic	Organic Nitrogen Guaranteed as derived from	Total	From Sul- fate	Total	CHLO- RIN	
7251	.....	.....	23.00	.....	.....	.....	4.11	.....	4.11	.....	.....	.....
	.....	.....	23.00	.....	.....	.....	3.75	.....	3.75	.....	.....	.....
7352	5.50	3.50	9.00	Bn, Super, T	2.07	.....	1.47	.....	3.54	.....	1.77	1.75
	5.00	3.00	8.00	Bn, Super, T	2.00	.....	2.00	Bat G, Bl, Bn	4.00	.....	3.00	.....
7093	.....	.....	8.75	.....	.....	2.63	4.70	.....	7.33	.....	.....	.....
	.....	.....	9.00	Bn, Super, T	.....	3.00	4.00	Bat G, Bl, Bn, Fs	7.00	.....	.....	.....
7106	.....	.....	8.50	.....	.....	3.55	4.94	.....	8.49	.....	.....	.....
	.....	.....	8.00	Bn, Super, T	.....	4.00	4.00	Bat G, Bl, Bn, Fs	8.00	.....	.....	.....
7107	.....	.....	12.60	.....	.....	1.62	.....	2.54	.....	.....	4.16	.....
7145	.....	.....	12.45	.....	.....	2.08	.....	1.59	.....	.....	3.67	.....
7248	.....	.....	12.55	.....	.....	1.85	.....	2.30	.....	.....	4.15	.....
7249	.....	.....	11.80	.....	.....	0.83	.....	3.38	.....	.....	4.21	.....
	12.00	Bn, Super, T	2.00	2.00	Bat G, Bl, Bn, Fs	4.00
7121	.....	.....	10.35	.....	.....	1.84	.....	4.03	.....	.....	5.87	.....
7122	.....	.....	10.30	.....	.....	1.74	.....	4.20	.....	.....	5.94	.....
7250	.....	.....	10.10	.....	.....	1.67	.....	4.21	.....	.....	5.88	.....
	.....	.....	10.00	Bn, Super, T	2.00	.....	4.00	Bat G, Bl, Bn	6.00	.....	.....	.....
7123	.....	.....	10.10	.....	.....	2.39	.....	2.33	.....	.....	4.72	.....
7146	.....	.....	10.60	.....	.....	2.26	.....	2.57	.....	.....	4.83	.....
7246	.....	.....	10.05	.....	.....	2.32	.....	2.70	.....	.....	5.02	.....
7351	.....	.....	10.20	.....	.....	2.33	.....	2.45	.....	.....	4.78	.....
	10.00	Bn, Super,	2.00	3.00	Bat G, Bl, Bn, Fs	5.00
7229	.....	.....	12.05	.....	.....	0.51	1.38	2.17	.....	.....	4.06	.....
	.....	.....	12.00	Bn, Super T,	1.00	1.00	2.00	Bat G, Bl, Bn	4.00	.....	.....	.....
7230	.....	.....	6.20	.....	.....	1.78	.....	3.12	.....	.....	4.90	.....
	.....	.....	6.00	Bn, Super, T	2.00	.....	3.00	Bat G, Bl, Bn, Fs	5.00	.....	.....	.....
7247	.....	.....	11.70	.....	.....	2.24	.....	2.86	.....	.....	5.10	.....
7097	.....	.....	12.60	.....	.....	1.95	.....	3.37	.....	.....	5.32	.....
	.....	.....	12.00	Bn, Super, T	2.00	.....	3.00	Bat G, Bl, Bn	5.00	.....	.....	.....
7266	.....	.....	8.30	.....	.....	2.35	.....	2.00	.....	.....	4.35	.....
	.....	.....	8.00	Bn, Super, T	2.00	.....	2.00	Bat G, Bl, Bn, Fs	4.00	.....	.....	.....
7357	.....	.....	11.80	.....	.....	2.55	0.72	1.72	.....	.....	4.90	.....
	.....	.....	10.00	Bn, Super, T	3.00	.....	2.00	Bat G, Bl, Bn, Fs	5.00	.....	.....	.....
7117	8.23	1.08	9.40	.....	.....	1.87	0.80	0.72	.....	.....	3.39	4.68
	8.00	1.00	9.00	Bn, Super	1.90	0.60	0.80	Bat G, Bl, Bn, T	3.30	4.00	.....	.....
7115	9.07	1.28	10.35	.....	.....	2.30	0.95	0.96	.....	.....	4.21	1.97
7118	9.51	1.34	10.85	.....	.....	2.49	0.79	0.85	.....	.....	4.13	1.76
7271	9.36	1.14	10.50	.....	.....	2.40	0.73	1.01	.....	.....	4.14	1.96
	9.00	1.00	10.00	Bn, Super	2.35	0.75	1.00	Bat G, Bl, Bn, T	4.10	1.50	.....	.....
7116	9.75	1.20	10.95	.....	.....	2.50	0.69	1.04	.....	.....	4.23	1.89
7117	9.34	1.36	10.70	.....	.....	2.48	0.85	0.77	.....	.....	4.10	1.75
	9.00	1.00	10.00	Bn, Super	2.35	0.75	1.00	Bat G, Bl, Bn, T	4.10	1.50	.....	.....
7244	.....	.....	14.40	.....	.....	.....	6.49	.....	6.49	.....	.....	.....
	.....	.....	12.00	.....	.....	.....	6.66	.....	6.66	.....	.....	.....
7245	.....	.....	13.00	.....	.....	.....	6.55	.....	6.55	.....	.....	.....
	.....	.....	4.15	.....	.....	.....	4.25	.....	4.25	.....	.....	.....
7306	.....	.....	13.10	.....	.....	.....	6.96	.....	6.96	.....	.....	.....
	.....	.....	12.00	.....	.....	.....	6.00	.....	6.00	.....	.....	.....
7063	.....	.....	27.80	.....	.....	.....	2.67	.....	2.67	.....	.....	.....
	.....	.....	28.00	.....	.....	.....	2.60	.....	2.60	.....	.....	.....

Lab. No.	NAME AND ADDRESS OF MANUFACTURER OR DEALER, AND NAME OF BRAND	FROM WHOM OBTAINED	Value per ton
	Armour Fertilizer Works, (Continued.) Los Angeles, Cal.		
7061*	Bone Meal.....	Azusa Foot-Hill Citrus Assn., Azusa.....	45.29
7065*	Bone Meal..... Guaranteed.....	Azusa Foot-Hill Citrus Assn., Azusa.....	45.22 44.40
7066*	Bone Meal..... Guaranteed.....	Azusa Foot-Hill Citrus Assn., Azusa.....	44.16 43.20
7067*	Bone Meal..... Guaranteed.....	Azusa Foot-Hill Citrus Assn., Azusa.....	44.59 42.72
7068*	Bone Meal..... Guaranteed.....	Azusa Foot-Hill Citrus Assn., Azusa.....	45.17 45.12
7071	Cropmaker Special.....	W. T. Henderson, Riverside.....	36.84
7072	Special 4-10-1..... Guaranteed.....	W. T. Henderson, Riverside.....	35.20 34.42
7073	Special 4-10-1..... Guaranteed.....	W. T. Henderson, Riverside.....	33.20 33.67
7136*	Tankage..... Guaranteed.....	E. R. Brubaker, et al, Azusa.....	46.44 48.56
	Rogers Brown & Co., Los Angeles, Cal.		
7082*	Bone Meal.....	J. Henry Reynolds, Redlands.....	47.50
7224*	Bone Meal.....	General Fertilizer Assn., Ontario.....	45.65
7360*	Bone Meal..... Guaranteed.....	R. W. Hamlin, Glendora.....	43.78 42.00
7089*	Whale Bone Meal..... Guaranteed.....	J. Henry Reynolds, Redlands.....	50.14 45.60
7191*	Bone Meal..... Guaranteed.....	C. A. Griffith, Azusa.....	46.44 47.28
7346*	Fish Meal..... Guaranteed.....	W. M. Warren, Covina.....	60.98 59.52
7335*	Fish Scrap..... Guaranteed.....	Henry Fuller, Redlands.....	51.60 55.80
7324*	Fish Tankage..... Guaranteed.....	D. B. Lee, Ontario.....	56.23 55.76
	California Fertilizer Works, San Francisco Cal.		
7176*	Special..... Guaranteed.....	G. A. Hanson, Upland.....	37.82 39.00
	Citrus Fertilizer Co., Los Angeles, Cal.		
7090	Doty's Fruiting.....	E. E. Cole, Redlands.....	31.92
7178	Doty's Fruiting..... Guaranteed.....	G. R. Tyler, Pomona.....	29.96 28.80
7091	Doty's Nursery.....	E. E. Cole, Redlands.....	38.93
7177	Doty's Nursery.....	G. R. Tyler, Pomona.....	35.70
7179	Doty's Nursery.....	G. R. Tyler, Pomona.....	37.58
7208	Doty's Nursery.....	G. R. Tyler, Pomona.....	34.34
7275	Doty's Nursery..... Guaranteed.....	Erasmus Wilson, San Gabriel.....	44.46 34.20
7092	Bird Guano (Doty's)..... Guaranteed.....	E. E. Cole, Redlands.....	70.96 56.50
	Cudahy Packing Co., Los Angeles, Cal.		
7253	Blood..... Guaranteed.....	General Fertilizer Assn., San Bernardino.....	70.04 70.20
7252*	Fish Meal..... Guaranteed.....	General Fertilizer Assn., San Bernardino.....	56.84 55.20
7347*	Fish Meal..... Guaranteed.....	E. E. Kaiser, Covina.....	48.41 53.16
	Duffy's Guano Co., Pasadena Cal.		
7214	Duffy's Guano No. 2..... Guaranteed.....	Perry Willetts, Pasadena.....	14.88 14.40

*7064—70% fine. *7360—61% fine. *7252—76% fine.
 *7065—71% fine. *7089—51% fine. *7347—65% fine.
 *7066—75% fine. *7191—63% fine.
 *7067—72% fine. *7316—53% fine.
 *7068—68% fine. *7335—56% fine.
 *7136—69% fine. *7321—64% fine.
 *7082—66% fine. *7176—No statement of derivation. In violation of California
 Fertilizer Act.
 *7224—58% fine.

PHOSPHORIC ACID					NITROGEN				POTASH			
Lab. No.	Avail- able	In- soluble	Total	Guaranteed as derived from	In Ni- trates	In Am- monia Salts	Or- ganic	Organic Nitrogen Guaranteed as derived from	Total	From Sul- fate	Total	CHLO- RIN
7064	.....	.....	28.70	.....	.....	.....	2.26	.....	2.26	.....	.....	.....
7065	.....	.....	27.60	.....	.....	.....	2.52	.....	2.52	.....	.....	.....
7066	.....	.....	27.00	.....	.....	.....	2.50	.....	2.50	.....	.....	.....
7067	.....	.....	26.80	.....	.....	.....	2.50	.....	2.50	.....	.....	.....
7068	.....	.....	26.00	.....	.....	.....	2.50	.....	2.50	.....	.....	.....
7069	.....	.....	26.00	.....	.....	.....	2.40	.....	2.40	.....	.....	.....
7070	.....	.....	28.20	.....	.....	.....	2.36	.....	2.36	.....	.....	.....
7071	7.27	3.68	10.95	.....	1.39	.....	2.61	.....	4.00	2.25	.....	1.20
7072	8.00	2.00	10.00	Bn, G, Super	1.50	.....	2.50	Bl, Bn, G, T	4.00	2.00	.....	.....
7073	5.98	4.52	10.50	.....	1.35	1.54	1.21	.....	4.10	1.07	.....	.....
7074	7.50	2.50	10.00	Bn, G, Super	1.50	1.50	1.00	Bl, Bn, G, T	4.00	1.00	.....	.....
7075	5.80	5.20	11.00	.....	1.45	.....	2.44	.....	3.89	0.90	.....	0.65
7136	6.50	3.50	10.00	Bn, G, Super	1.50	.....	2.50	Bl, Bn, G, T	4.00	1.00	.....	.....
7082	.....	.....	14.30	.....	.....	.....	6.10	.....	6.10	.....	.....	.....
7224	.....	.....	15.71	.....	.....	.....	6.19	.....	6.19	.....	.....	.....
7360	.....	.....	28.50	.....	.....	.....	2.77	.....	2.77	.....	.....	.....
7089	.....	.....	27.80	.....	.....	.....	2.56	.....	2.56	.....	.....	.....
7191	.....	.....	27.80	.....	.....	.....	2.17	.....	2.17	.....	.....	.....
7346	.....	.....	27.00	.....	.....	.....	2.00	.....	2.00	.....	.....	.....
7335	.....	.....	27.30	.....	.....	.....	3.62	.....	3.62	.....	.....	.....
7324	.....	.....	26.00	.....	.....	.....	3.00	.....	3.00	.....	.....	.....
7090	.....	.....	28.70	.....	.....	.....	2.50	.....	2.50	.....	.....	.....
7176	.....	.....	29.00	.....	.....	.....	2.60	.....	2.60	.....	.....	.....
7178	6.88	1.62	9.00	.....	1.39	.....	1.74	.....	3.13	.....	3.05	2.07
7179	7.00	2.32	9.20	.....	0.69	1.00	1.98	Bl, Bn, G, T,	2.67	.....	3.05	0.92
7177	.....	.....	8.90	Bn, Super, G, T	1.76	.....	3.31	.....	5.07	.....	1.72	1.27
7208	.....	.....	6.15	.....	1.87	.....	3.00	.....	4.87	1.76	.....	0.65
7275	.....	.....	6.00	Bn, Super, G, T	1.54	.....	3.44	.....	4.98	1.53	.....	0.80
7092	.....	.....	9.00	.....	1.19	0.69	4.09	.....	5.97	.....	2.50	1.15
7253	.....	.....	13.25	.....	2.00	.....	3.00	Bl, Bn, G, T	5.00	1.50	.....	.....
7252	.....	.....	13.62	.....	.....	.....	3.59	7.39	10.98	.....	1.18	.....
7347	.....	.....	8.90	.....	.....	.....	7.70	.....	7.70	.....	1.50	.....
7214	.....	.....	4.40	Bn, Super, G	2.00	0.50	1.50	Bl, Bn, G, T	2.00	.....	0.79	1.00

Lab. No.	NAME AND ADDRESS OF MANUFACTURER OR DEALER, AND NAME OF BRAND	FROM WHOM OBTAINED	Value per ton
7315*	Fruit Growers Supply Co., Los Angeles, Cal.	W. McKinley, Rialto.	46.94
7322*	Tankage Guaranteed	P. A. Demens, Alta Loma.	47.98
7343*	Tankage (Fish) Guaranteed	Chas. H. Low, Riverside.	50.42
7349*	Tankage (Fish) Guaranteed	C. W. Rhodes, et al. Pasadena	51.82
7348*	Tankage Guaranteed	Highland Oragne Assn., Highland	53.08
			56.16
			54.55
			51.72
			52.58
7257*	General Fertilizer Assn., San Bernardino, Cal.	Manufacturer's Warehouse.	55.34
7282	Fish Meal Guaranteed	W. F. Grove, Highland	58.20
7283	G. F. A. Special Guaranteed	W. F. Grove, Highland	35.36
7087	G. F. A. Special Guaranteed	J. Henry Reynolds, Redlands.	30.52
7088	G. F. A. Special No. 2 Guaranteed	J. Henry Reynolds, Redlands.	33.60
7258	G. F. A. Special Guaranteed	Manufacturer's Warehouse.	29.34
7259	G. F. A. Special Guaranteed	Manufacturer's Warehouse.	34.20
7086	Nitrate of Soda	J. Henry Reynolds, Redlands.	45.09
7256	Nitrate of Soda Guaranteed	Manufacturer's Warehouse.	42.40
7080	Special Mixture Guaranteed	J. Henry Reynolds, Redlands.	29.30
7081	Special Mixture	J. Henry Reynolds, Redlands.	28.80
7225	Special Mixture Guaranteed	Factory at Ontario.	76.22
			75.65
			72.00
7226	Special Mixture Guaranteed	Factory at Ontario.	37.92
			38.00
7344	Special Mixture Guaranteed	L. V. W. Brown, Riverside.	34.09
			36.49
			34.20
7272	Germain Seed & Plant Co., Los Angeles, Cal.	Morris & Snow Seed Co., Los Angeles.	31.81
			31.20
			29.74
			31.20
7149	Globe Grain & Milling Co., Los Angeles, Cal.	G. A. Hanson Fruit Co., Upland.	73.54
			72.00
7269	Blood Guaranteed	Manufacturer's Warehouse.	67.03
7323	Blood Guaranteed	M. C. Mascart, Redlands.	67.60
			55.74
			53.30
			55.22
			57.20
7148*	Bone Meal	G. A. Hanson Fruit Co., Upland.	46.46
7216*	Bone Meal	Ulery & Son., Pomona.	48.34
7227*	Bone Meal Guaranteed	H. A. Schreiner, Fullerton.	45.67
			43.20
7147*	Whale Bone Meal Guaranteed	G. A. Hanson Fruit Co., Upland.	48.07
			45.60
7270	Nitrate of Soda Guaranteed	Manufacturer's Warehouse.	74.69
			72.00
7217	Superphosphate Guaranteed	Ulery & Son., Pomona.	23.26
			20.40
7150*	Tankage Guaranteed	G. A. Hanson Fruit Co., Upland.	44.00
			43.80
7215*	Tankage	Ulery & Son., Pomona.	52.08
7228*	Tankage Guaranteed	H. A. Schreiner, Fullerton.	48.70
			43.20

*7315—73% fine.
*7322—66% fine.
*7343—50% fine.
*7349—64% fine.
*7348—58% fine.
*7257—61% fine.
*7148—58% fine.

*7216—60% fine.
*7427—56% fine.
*7147—58% fine.
*7150—71% fine.
*7215—63% fine.
*7228—66% fine.

Lab. No.	PHOSPHORIC ACID			NITROGEN				POTASH					
	Avail- able	In- soluble	Total	Guaranteed as derived from	In Ni- trates	In Am- monia Salts	Or- ganic	Organic Nitrogen Guaranteed as derived from	Total	From Sul- fate	Total	CHLO- RIN	
7315			11.00				7.03		7.03				
			10.50				7.37		7.37				
7322			14.10				6.98		6.98				
			15.14				7.01		7.01				
7343			7.55				9.17		9.17				
			8.00				9.70		9.70				
7349			8.45				9.30		9.30				
			8.78				9.17		9.17				
7348			14.10				7.25		7.25				
.			14.70				7.28		7.28				
7257			7.80				9.58		9.58				
			8.50				10.00		10.00				
7282			7.05			1.57	1.95		3.52				
7283			6.95			1.90	2.72		4.62				
			10.00	Bn, G			4.50	Bn, G, T	4.50				
7087			9.80			1.09	2.14		3.23		1.04		
			10.00	Bn, G		1.00	3.00	Bl, Bn, G	4.00		1.50		
7088	4.27	7.58	11.85			0.51	2.56		3.07		0.65		
	5.00	5.00	10.00	Bn, G		1.00	3.00	Bl, Bn, G	4.00		1.00		
7258	7.30	8.70	16.00			1.52	2.79		4.31		2.60	1.65	
	8.00	4.00	12.00	Bn, Super		1.50	3.50	Bl, Bn	5.00	2.00			
7259	3.50	9.00	12.50			0.50	2.48		2.98		0.87		
	8.00	4.00	12.00	Bn, G		1.00	2.00	Bl, Bn, G	3.00		1.00		
7086						15.88			15.88				
7256						15.76			15.76				
						15.00			15.00				
7080			10.90				2.11	2.57		4.68		1.19	0.75
			10.00				3.00	2.00	Bl, Bn, T	5.00		1.00	
7081			10.70				1.82	2.04		3.86		1.36	1.05
7225			11.60				1.73	2.21		3.94		1.83	0.75
			10.00	Bn, T			2.00	2.00	Bl, Bn, T	4.00		1.50	
7226			10.70			1.39	0.50	1.95		3.84		1.77	0.70
			10.00	Bn, T		1.50	0.50	2.00	Bl, Bn, T	4.00		1.50	
7344			10.90				0.89	2.58		3.47			
			10.00					4.00	Bl, Bn, T	4.00			
7272						15.32			15.32				
						15.00			15.00				
7149								12.89		12.89			
7269			1.30					13.00		13.00			
			2.00					10.72		10.72			
7323								10.25		10.25			
								10.62		10.62			
7148			24.60					11.00		11.00			
7216			26.00					3.53		3.53			
7227			24.30					3.57		3.57			
			24.00					3.44		3.44			
7147			26.70					3.00		3.00			
			26.00					3.34		3.34			
7270						15.56			3.00		3.00		
						15.00					15.56		
7217	18.72	0.58	19.30								15.00		
			17.00										
7150			7.35					7.33		7.33			
			6.50					7.50		7.50			
7215			17.80					6.40		6.40			
7228			17.50					5.77		5.77			
			18.00					4.50		4.50			

Lab. No.	NAME AND ADDRESS OF MANUFACTURER OR DEALER, AND NAME OF BRAND	FROM WHOM OBTAINED	Value per ton
7196	Hauser Packing Co., Los Angeles, Cal.		
7197	Bat Guano, High Grade..... Guaranteed.....	G. W. Fuhr, Azusa.....	49.13 61.44
7197	Bat Guano, Low Grade..... Guaranteed.....	G. W. Fuhr, Azusa.....	35.59 31.74
7337	Bat Guano..... Guaranteed.....	G. W. Fuhr, Azusa.....	46.57 61.72
7195*	Bone Meal..... Guaranteed.....	G. W. Fuhr, Azusa.....	46.18 45.60
7209*	Bone Meal..... Guaranteed.....	W. D. Richards, Corona.....	49.34 42.48
7265*	Bone Meal..... Guaranteed.....	Thomas Chisholm, Pasadena.....	49.30 46.80
7254*	Fish Meal..... Guaranteed.....	H. Umemoto, Los Angeles.....	41.50 50.40
7059*	Tankage.....	William P. Book, Covina.....	52.94
7061*	Tankage.....	R. H. Eddington, Azusa.....	49.07
7297*	Tankage.....	Stewart Citrus Assn., Upland.....	51.34
7298*	Tankage.....	Stewart Citrus Assn., Upland.....	50.92
7318*	Tankage.....	J. S. Grepe, East Highlands.....	53.75
7326	Tankage..... Guaranteed.....	J. C. Boyd, Rialto.....	51.38 52.80
7190*	Tankage.....	E. F. Wolever, Highgrove.....	45.42
7192*	Tankage.....	C. A. Griffith, Azusa.....	45.88
7193*	Tankage.....	G. W. Fuhr, Azusa.....	47.21
7305*	Tankage.....	Alex. Keating, Redlands.....	45.80
7339*	Tankage..... Guaranteed.....	C. Menefee, Covina.....	48.26 48.00
7285*	Tankage..... Guaranteed.....	B. W. Barnhart, Pomona.....	46.32 48.00
7291*	Tankage.....	Stewart Citrus Assn., Upland.....	42.02
7292*	Tankage.....	Stewart Citrus Assn., Upland.....	42.06
7293*	Tankage.....	Stewart Citrus Assn., Upland.....	43.31
7294*	Tankage.....	Stewart Citrus Assn., Upland.....	43.02
7295*	Tankage.....	Stewart Citrus Assn., Upland.....	41.00
7296*	Tankage..... Guaranteed.....	Stewart Citrus Assn., Upland.....	41.88 43.20
7300*	Tankage.....	H. J. Nichols, Pomona.....	46.98
7338*	Tankage..... Guaranteed.....	Mrs. J. M. Riley, Los Angeles.....	45.50 45.92
7290*	Tankage..... Guaranteed.....	H. C. Meck, Upland.....	46.76 47.45
7299*	Tankage..... Guaranteed.....	C. F. Lawrence, Claremont.....	46.44 47.46
7313*	Tankage..... Guaranteed.....	East Highlands Citrus Assn., East Highlands.....	43.81
7314*	Tankage..... Guaranteed.....	W. B. Bayless, Los Angeles.....	44.40 42.70
7321*	Tankage..... Guaranteed.....	Citrus Fruit Assn., Ontario.....	40.80 47.48
7329*	Tankage..... Guaranteed.....	H. Dameral, et al, Covina.....	47.40 43.81
7331*	Tankage..... Guaranteed.....	Monte Vista Citrus Assn., Riverside.....	44.40 43.44
7358*	Tankage..... Guaranteed.....	R. T. Nelson, Upland.....	45.24 46.62
7194	Special Mixture..... Guaranteed.....	G. W. Fuhr, Azusa.....	46.50 50.23
			45.86 49.20
Oakland Meat & Packing Co., Emeryville, Cal.			
7174*	Tankage..... Guaranteed.....	B. L. Byer, Upland.....	48.86 48.79
7175*	Tankage..... Guaranteed.....	B. L. Byer, Upland.....	47.40 46.79
7206*	Tankage..... Guaranteed.....	S. Miyamoto, Berkeley.....	44.26 37.20
7336*	Tankage..... Guaranteed.....	C. W. McIntosh, Rialto.....	45.86 47.99

*7195—51% fine.
*7209—53% fine.
*7265—51% fine.
*7251—63% fine.
*7059—73% fine.
*7061—74% fine.

*7297—79% fine.
*7298—76% fine.
*7318—73% fine.
*7190—80% fine.
*7192—81% fine. Some Hoof.
*7193—73% fine.

*7305—69% fine.
*7339—68% fine.
*7285—75% fine.
*7291—72% fine.
*7292—76% fine.
*7293—73% fine.

PHOSPHORIC ACID

NITROGEN

POTASH

Lab. No.	Avail- able soluble	In- soluble	Total	Guaranteed as derived from	In Am- monia Salts			Organic Nitrogen Guaranteed as derived from	Total	From Sul- fate	Total	CHLO- RIN
					In Ni- trates	Or- ganic	Organic Nitrogen Guaranteed as derived from					
7196			5.65		1.64	1.30	4.35		7.29		3.68	
			5.60				10.40		10.40		2.40	
7197			6.90		0.22	1.09	3.90			5.21		1.15
			8.40				5.00		5.00		0.33	
7337			8.35			0.82	6.24		7.06		1.33	
			5.60				10.50		10.50		2.30	
7195			22.60				3.97			3.97		
			26.00				3.00			3.00		
7209			27.80				3.33			3.33		
			27.00				2.10			2.10		
7265			27.60				3.37			3.37		
			27.00				3.00			3.00		
7254			7.35				6.81		6.81			
			6.00				9.00			9.00		
7059			5.80				9.58			9.58		
7061			6.45				8.61		8.61			
7297			3.70				9.77			9.77		
7298			3.75				9.67		9.67			
7318			4.15			2.21	7.95			10.16		
7326			4.50			1.42	8.16			9.58		
			4.00				10.00			10.00		
7190			10.05				6.95			6.95		
7192			8.35				7.47			7.47		
7193			9.50				7.46			7.46		
7305			9.25				7.23			7.23		
7339			8.30				7.98			7.98		
			8.00				8.00			8.00		
7285			10.60				7.00			7.00		
			10.00				7.50			7.50		
7291			11.30				5.93			5.93		
7292			11.45				5.90			5.90		
7293			11.25				6.21			6.21		
7294			11.05				6.20			6.20		
7295			11.05				5.78			5.78		
7296			11.50				5.85			5.85		
			12.00				6.00			6.00		
7300			9.75				7.35			7.35		
7338			9.40				7.13			7.13		
			9.55				7.18			7.18		
7290			9.45				7.38			7.38		
			9.46				7.52			7.52		
7299			9.50				7.30			7.30		
			9.83				7.43			7.43		
7313			12.35				6.04			6.04		
			13.00				6.00			6.00		
7314			10.70				6.22			6.22		
			10.00				6.00			6.00		
7321			9.05				7.63			7.63		
			9.50				7.50			7.50		
7329			6.15				7.59			7.59		
			5.00				8.00			8.00		
7331			9.40				6.70			6.70		
			8.50				7.30			7.30		
7358			10.85				7.00			7.00		
			8.75				7.50			7.50		
7194	3.30	2.00	5.30		8.53		0.61			9.14		
			5.00	Super, T			9.00	Bl, Bn, T		9.00		

7174			16.40				6.08			6.08		
			16.34				6.08			6.08		
7175			15.70				5.95			5.95		
			15.63				5.84			5.84		
7206			4.60				8.07			8.07		
			3.00				7.00			7.00		
7336			15.50				5.68			5.68		
			16.63				5.84			5.84		

*7291—73% fine.
 *7295—71% fine.
 *7296—72% fine.
 *7300—74% fine.
 *7338—71% fine.
 *7290—72% fine.

*7299—70% fine.
 *7313—65% fine.
 *7314—61% fine.
 *7321—71% fine.
 *7329—68% fine.
 *7331—76% fine.

*7358—75% fine.
 *7174—64% fine. Some Hoof.
 *7175—70% fine. Some Hoof.
 *7206—58% fine.
 *7336—66% fine. Some Hoof.

Lab. No.	NAME AND ADDRESS OF MANUFACTURER OR DEALER, AND NAME OF BRAND	FROM WHOM OBTAINED	Value per ton
	Pacific Bone Coal and Fertilizing Co., San Francisco, Cal.		
7273*	Bone Meal.....	Curtis Ranch Co., Bloomington	45.36
7274*	Bone Meal..... <i>Guaranteed</i>	Curtis Ranch Co., Bloomington	45.14
7105*	Steamed Bone and Blood..... <i>Guaranteed</i>	C. Huber, Los Angeles.....	43.20
7157	Special..... <i>Guaranteed</i>	P. A. Demens, Alta Loma.....	48.72
7350	Special..... <i>Guaranteed</i>	Anaheim Citrus Fruit Co., Anaheim.....	32.25
7280	Sulfate of Ammonia..... <i>Guaranteed</i>	La Verne Orange and Lemon Growers Assn., Lordsburg.....	35.20
			37.06
			36.00
			98.88
			98.40
	Pacific Guano & Fertilizer Co., San Francisco, Cal.		
7169	Bat Guano (Armour's)..... <i>Guaranteed</i>	S. E. Bryant, Covina.....	71.18
7316	Bat Guano..... <i>Guaranteed</i>	E. R. Brubaker, Azusa.....	71.66
7317	Bat Guano..... <i>Guaranteed</i>	Mrs. O. F. Wright, Azusa.....	67.95
7108	Blood..... <i>Guaranteed</i>	A. G. Johnson, Redlands.....	52.11
7162	Blood (Armour's)..... <i>Guaranteed</i>	A. M. Seeley, Covina.....	54.30
7210	Blood (Armour's)..... <i>Guaranteed</i>	John Blake, Pasadena.....	72.02
7219	Blood..... <i>Guaranteed</i>	Wilson & Hickox, Upland.....	70.25
			70.98
			70.67
			69.99
7160*	Bone Meal (Armour's).....	E. F. Wilson, Upland.....	49.08
7222*	Bone Meal (Armour's)..... <i>Guaranteed</i>	E. F. Wilson, Upland.....	48.14
7161*	Bone Flour..... <i>Guaranteed</i>	R. M. Douglas, Covina.....	45.20
7166*	Bone Meal (Armour's).....	A. M. Seeley, Covina.....	43.56
7231*	Bone Meal (Armour's).....	Highland Fruit Growers Assn., Highland.....	48.07
7238*	Bone Meal (Armour's)..... <i>Guaranteed</i>	E. M. Hudson, Los Angeles.....	46.97
			46.82
			45.60
7189*	Bone Meal..... <i>Guaranteed</i>	Wilson & Hickox, Upland.....	46.70
7211*	Bone Meal (Armour's)..... <i>Guaranteed</i>	John Blake, Pasadena.....	44.16
7220*	Bone Flour..... <i>Guaranteed</i>	Wilson & Hickox, Upland.....	45.70
7237*	Bone Meal (Armour's)..... <i>Guaranteed</i>	E. M. Hudson, Los Angeles.....	45.36
7168	Special Cropmaker (Armour's)....A. M. Seeley, Covina.....	43.68	
7202	Special Cropmaker (Armour's)....E. F. Struve, Pomona.....	45.50	
		46.02	
7203	Special Cropmaker.....	E. F. Struve, Pomona.....	38.75
7212	Special Cropmaker.....	John Blake, Pasadena.....	34.99
7234	Special Cropmaker.....	Highland Fruit Growers Assn., Highland.....	38.72
7311	Special Cropmaker.....	Johnson & Fairchild, Redlands.....	34.93
7312	Special Cropmaker..... <i>Guaranteed</i>	Johnson & Fairchild, Redlands.....	33.65
			35.20
			37.19
			35.54
7319*	Special Cropmaker..... <i>Guaranteed</i>	Mrs. S. F. McDonald, Glendora.....	33.20
			44.82
			43.60
7180	Diamond N..... <i>Guaranteed</i>	S. Schaffner, Upland.....	35.94
			34.00

*7273—56% fine.

*7274—54% fine.

*7105—48% fine as bone.

*7160—41% fine.

*7222—41% fine.

*7161—98% fine.

*7166—53% fine.

*7231—61% fine.

*7238—53% fine.

*7189—50% fine.

*7211—69% fine.

*7220—99% fine.

*7287—68% fine.

*7319—Brand name does not conform to composition. Agreed by all parties that mistake is

made in tagging. Present guarantee inserted by Fertilizer Control.

PHOSPHORIC ACID

NITROGEN

POTASH

Lab. No.	Avail- able	In- soluble	Total	Guaranteed as derived from	In Ni- trates	In Am- monia Salts	Or- ganic	Guaranteed as derived from	Total	From Sul- fate	POTASH		
											Total	CHLO- RIN	
7273	.....	24.00	.....	.....	.....	.....	3.45	.....	3.45	.....	.....	.....
7274	.....	23.70	.....	.....	.....	.....	3.48	.....	3.48	.....	.....	.....
7105	.....	24.00	.....	.....	.....	.....	3.00	.....	3.00	.....	.....	.....
7157	.....	21.00	.....	.....	.....	.....	4.90	.....	4.90	.....	.....	.....
7157	.....	20.00	.....	.....	.....	.....	5.00	.....	5.00	.....	.....	.....
7350	5.28	4.92	10.20	.....	0.17	0.57	2.52	.....	3.26	1.82	.....	0.67
7350	3.00	7.00	10.00	Bn, G, Bn, Super	1.67	1.56	1.94	Bl, Bn, T	4.00	2.00
7280	.....	.....	.....	.....	.....	.....	20.60	.....	20.60	.....	.....	.....
7280	.....	.....	.....	.....	.....	.....	20.50	.....	20.50	.....	.....	.....
7169	.....	4.70	.....	0.38	2.47	10.05	.....	.....	12.90	.....	1.81	.....
7316	.....	4.00	.....	.....	.....	13.20	.....	.....	13.20	.....	1.75	.....
7316	.....	3.25	.....	.....	1.50	11.21	.....	.....	12.71	.....	1.52	.....
7317	.....	3.03	.....	.....	.....	11.62	.....	.....	11.62	.....	1.35	.....
7317	.....	4.20	.....	0.52	1.55	7.35	.....	.....	9.42	.....	2.02	.....
7108	.....	4.31	.....	.....	.....	8.80	.....	.....	8.80	.....	2.34	.....
7108	.....	.....	.....	.....	.....	13.78	.....	.....	13.78	.....	.....	.....
7162	.....	.....	.....	.....	.....	14.11	.....	.....	14.11	.....	.....	.....
7210	.....	.....	.....	.....	.....	13.76	.....	.....	13.76	.....	.....	.....
7219	.....	.....	.....	.....	.....	13.85	.....	.....	13.85	.....	.....	.....
7219	.....	.....	.....	.....	.....	13.51	.....	.....	13.51	.....	.....	.....
7160	.....	26.70	.....	.....	.....	13.65	.....	.....	13.65	.....	.....	.....
7222	.....	26.20	.....	.....	.....	13.59	.....	.....	13.59	.....	.....	.....
7161	.....	24.95	.....	.....	.....	13.46	.....	.....	13.46	.....	.....	.....
7166	.....	33.70	.....	.....	.....	3.55	.....	.....	3.55	.....	.....	.....
7231	.....	33.08	.....	.....	.....	3.48	.....	.....	3.48	.....	.....	.....
7238	.....	26.90	.....	.....	.....	3.18	.....	.....	3.18	.....	.....	.....
7189	.....	25.90	.....	.....	.....	3.00	.....	.....	3.00	.....	.....	.....
7211	.....	26.30	.....	.....	.....	4.03	.....	.....	4.03	.....	.....	.....
7220	.....	26.00	.....	.....	.....	3.00	.....	.....	3.00	.....	.....	.....
7237	.....	23.80	.....	.....	.....	3.70	.....	.....	3.70	.....	.....	.....
7211	.....	22.00	.....	.....	.....	2.27	.....	.....	2.27	.....	.....	.....
7220	.....	29.00	.....	.....	.....	2.45	.....	.....	2.45	.....	.....	.....
7237	.....	28.00	.....	.....	.....	0.65	.....	.....	0.65	.....	.....	.....
7168	6.41	5.64	12.05	.....	1.55	2.66	.....	.....	4.21	2.04	.....	0.52
7202	7.55	3.70	11.25	.....	1.43	2.57	.....	.....	4.00	3.01	.....	0.75
7202	8.00	2.00	10.00	Bn, G, Super	1.50	2.50	Bl, Bn, G, T	.....	4.00	2.00	.....	.....
7203	5.35	5.50	10.85	.....	0.70	3.76	.....	.....	4.46	1.38	.....	0.70
7212	4.60	6.50	11.10	.....	.....	4.00	.....	.....	4.09	1.02	.....	0.70
7234	4.84	5.66	10.50	.....	.....	4.19	.....	.....	4.19	1.11	.....	0.77
7311	7.01	3.24	10.25	.....	1.31	2.63	.....	.....	3.94	1.22	.....	0.65
7312	5.89	4.76	10.65	.....	0.48	3.77	.....	.....	4.25	1.18	.....	0.97
7312	8.00	2.00	10.00	Bn, G, Super	.....	4.00	Bn, Bl, G, T	.....	4.00	1.00	.....	.....
7319	.....	.....	8.90	.....	2.34	3.96	.....	.....	6.30	2.00	1.95	1.45
7319	.....	.....	9.00	Bn, G, Super	2.00	4.00	Bl, Bn, G, T, Fs	.....	6.00	2.00	.....	.....
7180	7.40	2.00	9.40	.....	1.15	2.98	.....	.....	4.13	2.42	.....	0.62
7180	8.00	1.00	9.00	Bn, Super	1.00	3.00	Bl, Bn, Fs	.....	4.00	2.00	.....	.....

Lab. No.	NAME AND ADDRESS OF MANUFACTURER OR DEALER, AND NAME OF BRAND	FROM WHOM OBTAINED	Value per ton
Pacific Guano & Fertilizer Co., (Continued.) San Francisco, Cal.			
7181	Diamond S. <i>Guaranteed.</i>	Wilson & Hickox, Upland....	46.50 43.60
7113	Gaviota Special <i>Guaranteed.</i>	A. G. Johnson, Redlands.....	37.41 34.20
7302	Gaviota Special.....	H. Latimer, Ontario.....	44.20
7303	Gaviota Special.....	H. Latimer, Ontario.....	44.52
7320*	Gaviota Special..... <i>Guaranteed.</i>	Mrs. S. F. McDonald, Glendora.....	45.07 43.60
7327	Gaviota Special..... <i>Guaranteed.</i>	J. C. Boyd, Rialto.....	31.13 27.40
7185	Gaviota Special 3-8-2.....	Wilson & Hickox, Upland.....	28.81
7200	Gaviota Special 3-8-2..... <i>Guaranteed.</i>	E. F. Struve, Pomona.....	31.23 28.00
7186	Gaviota Special 4-8-0..... <i>Guaranteed.</i>	Wilson & Hickox, Upland.....	28.70 28.80
7187	Gaviota Special 2-11-5..... <i>Guaranteed.</i>	Wilson & Hickox, Upland.....	34.97 32.80
7198	Gaviota Special 4-8-5..... <i>Guaranteed.</i>	E. F. Struve, Pomona.....	41.62 38.80
7199	Gaviota Special 4-9-2..... <i>Guaranteed.</i>	E. F. Struve, Pomona.....	35.93 34.00
7204	Gaviota Special 1.5-14-1.5.....	E. F. Struve, Pomona.....	29.02
7223	Gaviota Special 1.5-14-1.5..... <i>Guaranteed.</i>	Wilson & Hickox, Upland.....	27.28 27.00
7159	Special Lawn (Armour's)..... <i>Guaranteed.</i>	E. F. Wilson, Upland.....	34.22 33.20
7213	Special Lawn (Armour's)..... <i>Guaranteed.</i>	John Blake, Pasadena.....	26.76 26.40
7240	Special Lawn (Armour's)..... <i>Guaranteed.</i>	E. M. Hudson, Los Angeles.....	26.80 26.40
7241	Special Lawn (Armour's)..... <i>Guaranteed.</i>	E. M. Hudson, Los Angeles.....	25.36 24.00
7242	Special Lawn (Armour's)..... <i>Guaranteed.</i>	E. M. Hudson, Los Angeles.....	24.78 24.00
7109	Nitrate of Soda.....	A. G. Johnson, Redlands.....	74.50
7182	Nitrate of Soda.....	Wilson & Hickox, Upland.....	73.54
7235	Nitrate of Soda..... <i>Guaranteed.</i>	E. M. Hudson, Los Angeles.....	73.73 72.00
7164*	Temporary P. N. K. <i>Guaranteed.</i>	A. M. Seeley, Covina.....	37.58 32.80
7165*	Temporary P. N. K. <i>Guaranteed.</i>	A. M. Seeley, Covina.....	42.40 38.80
7112	Special..... <i>Guaranteed.</i>	A. G. Johnson, Redlands.....	36.88 34.20
7183	Special.....	Wilson & Hickox, Upland.....	37.20
7201	Special..... <i>Guaranteed.</i>	E. F. Struve, Pomona.....	38.33 36.00
7184	Special..... <i>Guaranteed.</i>	Wilson & Hickox, Upland.....	39.75 35.20
7243	Special (Armour's)..... <i>Guaranteed.</i>	E. M. Hudson, Los Angeles.....	24.19 24.00
7158	Special (Armour's) 4-10-1.....	E. F. Wilson, Upland.....	34.46
7167	Special (Armour's) 4-10-1.....	A. M. Seeley, Covina.....	34.16
7233	Special (Armour's) 4-10-1..... <i>Guaranteed.</i>	Highland Fruit Growers Assn., Highland.....	35.74 33.20
7232	Special (Armour's) 4-10-1..... <i>Guaranteed.</i>	Highland Fruit Growers Assn., Highland.....	35.48 33.20
7239	Special (Armour's) 4-10-1..... <i>Guaranteed.</i>	E. M. Hudson, Los Angeles.....	34.12 33.20
7205	Superphosphate, Cresco..... <i>Guaranteed.</i>	E. F. Struve, Pomona.....	22.56 21.60

*7320—Brand name does not conform to composition. Agreed by all parties that mistake is made in tagging. Present guarantee inserted by Fertilizer Control.

*7164 { The Brand P. N. K. calls for 6% potash. Owing to the dearth of this material the Fertilizer Control has authorized the reduction to 5% potash in goods marked Temporary.

*7165

NAME AND ADDRESS OF
MANUFACTURER OR DEALER, FROM WHOM OBTAINED
AND NAME OF BRAND

Lab. No.	NAME AND ADDRESS OF MANUFACTURER OR DEALER, AND NAME OF BRAND	Value per ton
	Pacific Guano & Fertilizer Co. (Continued). San Francisco Cal.	
7111*	Tankage..... A. G. Johnson, Redlands.....	49.75
	Guaranteed.....	49.83
7163*	Tankage..... A. M. Seeley, Covina.....	46.68
	Guaranteed.....	44.10
7170*	Tankage (Armour's)..... A. M. Seeley, Covina.....	51.53
	Guaranteed.....	54.02
7171*	Tankage (Armour's)..... A. M. Seeley, Covina.....	49.88
	Guaranteed.....	50.82
7221*	Tankage..... Wilson & Hickox, Upland.....	45.04
	Guaranteed.....	45.86
7267*	Tankage (Armour's)..... W. F. Scott, Villa Park.....	46.45
	Guaranteed.....	47.45
7268*	Tankage..... W. F. Scott, Villa Park.....	52.01
	Guaranteed.....	52.60
7341*	Tankage..... A. C. Barnes, Riverside.....	51.08
	Guaranteed.....	50.40
7236*	Tankage (Fish Meal)..... E. M. Hudson, Los Angeles.....	39.66
	Guaranteed.....	39.58
7340	Sulfate of Ammonia and Tankage..... I. W. Haskill, Azusa.....	56.03
	Guaranteed.....	55.20
7188	T. R. K..... Wilson & Hickox, Upland.....	40.86
	Guaranteed.....	38.80

Southern California Fertilizer Co.,
Los Angeles, Cal.

7096*	Garbage Tankage.....	J. F. Jackson, Riverside.....	
7260*	Garbage Tankage.....	Sierra Madre Lamanda Citrus Assn., Lamanda Park	
7261*	Garbage Tankage.....	Sierra Madre Lamanda Citrus Assn., Lamanda Park	
7281*	Garbage Tankage.....	T. W. Frye, Highland.....	
7301*	Garbage Tankage.....	J. D. Boley & A. B. Carris, Highland.....	
7325*	Garbage Tankage.....	M. T. Durrell, Azusa.....	
7333*	Garbage Tankage..... Guaranteed.....	Mrs. A. R. Pettijohn, Colton.....	
7094*	Fish Scrap..... Guaranteed.....	J. F. Jackson, Riverside.....	45.14
7095	Fruiting..... Guaranteed.....	J. F. Jackson, Riverside.....	39.60
			34.74
			30.00

W. M. Warren Fertilizer Co.,
Covina, Cal.

7345	Mixture..... Guaranteed.....	B. L. King, Covina.....	56.09
			52.80

Western Meat Company,
San Francisco, Cal.

7098	Blood.....	B. L. Byer, Upland.....	72.96
7140	Blood..... Guaranteed.....	F. Manning, Glendora.....	71.60
7218	Blood..... Guaranteed.....	Wilson & Hickox, Upland.....	70.20
			72.28
7262*	Bone Meal, Diamond G.....	Johnston & Son, Lamanda Park.....	71.24
7139*	Bone Meal, Diamond G..... Guaranteed.....	F. Manning, Glendora.....	44.59
			45.36
			42.00

*7111—80% fine.

*7262—81% fine.

*7163—81% fine.

*7139—72% fine.

*7170—73% fine.

*7171—79% fine.

*7221—80% fine.

*7267—68% fine.

*7268—80% fine.

*7341—77% fine.

*7236—80% fine.

*7096—46% fine.

*7260—43% fine.

*7261—46% fine.

*7281—47% fine.

*7301—48% fine.

*7325—48% fine.

*7333—38% fine.

*7094—58% fine.

} In absence of market quotations no prices are given on Garbage Tankage.

} In absence of market quotations no prices are given on Garbage Tankage.

Lab. No.	PHOSPHORIC ACID			NITROGEN				POTASH				
	Avail- able	In- soluble	Total	Guaranteed as derived from	In Ni- trates	In Am- monia Salts	Or- ganic	Organic Nitrogen Guaranteed as derived from	Total	From Sul- fate	Total	CHLO- RIN
7111	10.55	.....	.....	.....	7.73	.....	.....	7.73	.....	.....	.....
	10.45	.....	.....	.....	7.77	.....	.....	7.77	.....	.....	.....
7163	16.50	.....	.....	.....	5.60	.....	.....	5.60	.....	.....	.....
	15.75	.....	.....	.....	5.25	.....	.....	5.25	.....	.....	.....
7170	7.30	.....	.....	.....	8.91	.....	.....	8.91	.....	.....	.....
	5.50	.....	.....	.....	9.88	.....	.....	9.88	.....	.....	.....
7171	12.45	.....	.....	.....	7.28	.....	.....	7.28	.....	.....	.....
	12.35	.....	.....	.....	7.50	.....	.....	7.50	.....	.....	.....
7221	13.25	.....	.....	.....	6.07	.....	.....	6.07	.....	.....	.....
	13.18	.....	.....	.....	6.26	.....	.....	6.26	.....	.....	.....
7267	13.95	.....	.....	.....	6.19	.....	.....	6.19	.....	.....	.....
	14.58	.....	.....	.....	6.24	.....	.....	6.24	.....	.....	.....
7268	11.30	.....	.....	.....	8.01	.....	.....	8.01	.....	.....	.....
	12.03	.....	.....	.....	7.95	.....	.....	7.95	.....	.....	.....
7341	11.25	.....	.....	.....	7.83	.....	.....	7.83	.....	.....	.....
	10.00	.....	.....	.....	8.00	.....	.....	8.00	.....	.....	.....
7236	8.65	.....	.....	.....	6.10	.....	.....	6.10	.....	.....	.....
	8.50	.....	.....	.....	6.12	.....	.....	6.12	.....	.....	.....
7340	9.65	.....	.....	.....	8.94	0.32	.....	9.26	.....	.....	.....
7188	8.32	1.28	9.60	Bn, G, Super	2.17	.....	1.73	Bl, Bn, G,	3.90	5.31	.....	.....
	8.00	T	2.00	.....	2.00	T, F _s	4.00	5.00	.....	.....
7096	2.80	.....	.....	.....	2.98	.....	.....	2.98	.....	1.24	1.22
7260	2.70	.....	.....	.....	2.83	.....	.....	2.83	.....	1.52	1.25
7261	2.30	.....	.....	.....	2.86	.....	.....	2.86	.....	1.15	1.17
7281	2.65	.....	.....	.....	3.02	.....	.....	3.02	.....	1.30	1.35
7301	2.45	.....	.....	.....	2.93	.....	.....	2.93	.....	1.43	0.85
7325	2.75	.....	.....	.....	3.17	.....	.....	3.17	.....	1.44	1.37
7333	2.60	.....	.....	.....	2.90	.....	.....	2.90	.....	1.34	1.32
	2.25	.....	.....	.....	2.75	.....	.....	2.75	.....	1.25	.....
7094	7.90	.....	.....	.....	7.43	.....	.....	7.43	.....	.....	.....
	5.00	.....	.....	.....	7.00	.....	.....	7.00	.....	.....	.....
7095	7.73	1.42	9.15	Bn, Super, T	0.78	1.30	1.60	Bl, Bn, G, T	3.68	3.05	.....	.....
	7.00	1.00	8.00	T	1.00	0.80	1.20	Bl, Bn, G, T	3.00	3.00	.....	.....
7345	5.10	.....	Bat G, Bn, T	.....	3.09	7.32	Bat G, Bl, Bn, T	10.41	.....	.....	.....
	4.00	.....	T	.....	2.00	8.00	Bl, Bn, G, T	10.00	.....	.....	.....
7098	14.03	.....	.....	14.03	.....	.....	.....
7140	13.77	.....	.....	13.77	.....	.....	.....
	13.50	.....	.....	13.50	.....	.....	.....
7218	13.90	.....	.....	13.90	.....	.....	.....
	13.70	.....	.....	13.70	.....	.....	.....
7262	30.00	.....	.....	.....	1.79	.....	.....	1.79	.....	.....	.....
7139	31.00	.....	.....	.....	1.70	.....	.....	1.70	.....	.....	.....
	27.00	.....	.....	.....	2.00	.....	.....	2.00	.....	.....	.....

Lab. No.	NAME AND ADDRESS OF MANUFACTURER OR DEALER, AND NAME OF BRAND	FROM WHOM OBTAINED	Value per ton
	Western Meat Company (Continued.) <i>San Francisco, Cal.</i>		
7079	Diamond D.....	J. Henry Reynolds, Redlands.....	37.18
7128	Diamond D.....	B. L. Byer, Upland.....	40.33
7141	Diamond D..... <i>Guaranteed.....</i>	F. Manning, Glendora.....	37.67 35.20
7124	Diamond M.....	B. L. Byer, Upland.....	35.51
7264	Diamond M.....	Johnston & Son, Lamanda Park.....	35.68
7287	Diamond M.....	Earl M. Harvey, Nuevo.....	33.43
7289	Diamond M..... <i>Guaranteed.....</i>	B. J. Mather, Nuevo.....	32.87 32.80
7060	Special..... <i>Guaranteed.....</i>	El Dorado Potato Growers Assn., Placerville.....	40.04 38.80
7075	Special..... <i>Guaranteed.....</i>	J. Henry Reynolds, Redlands.....	34.87 28.40
7076*	Special..... <i>Guaranteed.....</i>	J. Henry Reynolds, Redlands.....	31.98 31.20
7078*	Special..... <i>Guaranteed.....</i>	J. Henry Reynolds, Redlands.....	35.96 36.00
7104	Special..... <i>Guaranteed.....</i>	B. L. Byer, Upland.....	46.49 48.00
7077*	Special.....	J. Henry Reynolds, Redlands.....	42.72
7101*	Special.....	B. L. Byer, Upland.....	44.21
7127*	Special..... <i>Guaranteed.....</i>	B. L. Byer, Upland.....	44.18 42.24
7102	Special..... <i>Guaranteed.....</i>	B. L. Byer, Upland.....	40.38 35.20
7152	Special.....	B. L. Byer, Upland.....	38.77
7207	Special..... <i>Guaranteed.....</i>	B. L. Byer, Upland.....	41.42 35.20
7263	Special..... <i>Guaranteed.....</i>	Johnston & Son, Lamanda Park.....	37.64 35.20
7103	Special.....	B. L. Byer, Upland.....	46.06
7133	Special.....	B. L. Byer, Upland.....	45.24
7154	Special.....	B. L. Byer, Upland.....	46.78
7172	Special..... <i>Guaranteed.....</i>	B. L. Byer, Upland.....	46.04 42.40
7137	Special..... <i>Guaranteed.....</i>	F. Manning, Glendora.....	44.82 42.40
7153	Special	B. L. Byer, Upland.....	47.23
7173	Special..... <i>Guaranteed.....</i>	B. L. Byer, Upland.....	45.41 42.40
7129	Special..... <i>Guaranteed.....</i>	B. L. Byer, Upland.....	35.68 34.68
7132	Special..... <i>Guaranteed.....</i>	B. L. Byer, Upland.....	50.30 48.80
7135	Special..... <i>Guaranteed.....</i>	B. L. Byer, Upland.....	40.95 37.28
7138	Special..... <i>Guaranteed.....</i>	F. Manning, Glendora.....	54.59 56.40
7130	Special..... <i>Guaranteed.....</i>	B. L. Byer, Upland.....	39.60 37.60

*7076—78% fine as tankage.

*7078—74% fine as tankage.

*7077—58% fine as bone.

*7101—58% fine as bone.

*7127—59% fine as bone.

PHOSPHORIC ACID				NITROGEN				POTASH				
Lab. No.	Avail- able	In- soluble	Total	Guaranteed as derived from	In Ni- trates	In Am- monia Salts	Or- ganic	Guaranteed as derived from	Total	From Sul- fate	Total	CHLO- RIN
7079	7.22	3.28	10.50	.....	0.70	.....	3.50	.....	4.20	.....	2.21	1.05
7128	4.45	6.90	11.35	.....	0.69	.....	3.65	.....	4.34	2.94	.....	.....
7141	4.16	6.84	11.00	.....	0.71	.....	3.48	.....	4.19	.....	2.18	1.07
.....	8.00	2.00	10.00	Bn, Super	1.00	.....	3.00	Animal Matter	4.00	2.00	.....	.....
7124	6.27	4.68	10.95	.....	0.91	.....	2.23	.....	3.14	3.65	.....	1.00
7264	5.08	4.92	10.00	.....	0.93	.....	2.44	.....	3.37	3.75	.....	0.60
7287	4.34	5.76	10.10	.....	0.63	.....	2.23	.....	2.86	.....	3.79	1.07
7289	6.44	2.76	9.20	.....	0.90	.....	1.99	.....	2.89	.....	3.98	1.10
.....	8.00	1.50	9.50	Bn, Super	1.00	.....	2.00	Animal Matter	3.00	3.50	.....	.....
7060	6.58	2.32	8.90	.....	0.78	.....	2.94	.....	3.72	.....	5.75	1.80
.....	.....	8.00	Bn, Super	.....	2.00	.....	2.00	Animal Matter	4.00	5.00	.....	.....
7075	.....	10.45	.....	.....	.....	.....	4.16	.....	4.16	.....	1.18	1.45
.....	.....	10.00	Bn, Super	.....	.....	.....	3.00	Animal Matter	3.00	1.00	.....	.....
7076	.....	10.45	.....	Bn	.....	.....	4.05	.....	4.05	.....	.....	.....
7078	.....	10.05	.....	.....	.....	.....	4.98	.....	4.98	.....	.....	.....
.....	.....	10.00	Bn, Super	.....	.....	.....	5.00	Animal Matter	5.00	.....	.....	.....
7104	4.66	3.64	8.30	.....	3.04	.....	4.57	.....	7.61	.....	.....	.....
.....	.....	8.00	Bn, Super	.....	3.00	.....	5.00	Animal Matter	8.00	.....	.....	.....
7077	.....	20.00	.....	.....	.....	.....	3.90	.....	3.90	.....	.....	.....
7101	.....	21.60	.....	.....	.....	.....	3.81	.....	3.81	.....	.....	.....
7127	.....	20.50	.....	.....	.....	.....	4.08	.....	4.08	.....	.....	.....
.....	.....	20.00	Bn	.....	.....	.....	3.80	Animal Matter	3.80	.....	.....	.....
7102	.....	10.90	.....	.....	.....	1.08	3.45	.....	4.53	2.78	.....	0.95
.....	.....	10.00	Bn, Super	.....	.....	1.00	3.00	Animal Matter	4.00	2.00	.....	.....
7152	3.95	6.00	9.95	.....	0.63	.....	4.08	.....	4.71	2.11	.....	.....
7207	.....	12.00	.....	.....	0.76	.....	3.74	.....	4.50	.....	2.71	1.22
.....	.....	10.00	Bn, Super	.....	1.00	.....	3.00	Animal Matter	4.00	2.00	.....	.....
7263	.....	11.25	.....	Bn	.....	.....	4.10	.....	4.10	.....	2.23	1.32
.....	.....	10.00	.....	.....	.....	.....	4.00	Animal Matter	4.00	2.00	.....	.....
7103	.....	9.85	.....	.....	.....	1.98	4.10	.....	6.08	.....	2.53	1.20
7133	.....	9.00	.....	.....	.....	2.33	3.78	.....	6.11	.....	2.56	1.40
7154	.....	9.40	.....	.....	.....	2.23	4.22	.....	6.45	2.27	.....	0.62
7172	4.14	4.86	9.00	.....	.....	2.14	4.21	.....	6.35	2.38	.....	0.90
.....	.....	8.00	Bn, Super	.....	.....	2.00	4.00	Animal Matter	6.00	2.00	.....	.....
7137	.....	8.10	.....	.....	.....	6.58	.....	.....	6.58	.....	1.76	1.57
.....	.....	8.00	Bn, Super	.....	.....	6.00	Animal Matter	6.00	2.00	.....	.....	.....
7153	4.32	4.98	9.30	.....	1.56	.....	4.70	.....	6.26	3.01	.....	0.62
7173	4.01	3.94	7.95	.....	2.46	.....	3.75	.....	6.21	3.03	.....	1.00
.....	.....	8.00	Bn, Super	.....	2.00	.....	4.00	Animal Matter	6.00	2.00	.....	.....
7129	.....	10.65	.....	.....	1.51	0.74	1.43	.....	3.68	.....	2.62	1.02
.....	.....	10.00	Bn, Super	.....	2.35	0.75	1.00	Animal Matter	4.10	1.50	.....	.....
7132	.....	10.80	.....	Bn, Super	.....	.....	6.18	.....	6.18	.....	3.84	2.00
.....	.....	10.00	.....	.....	.....	6.00	Animal Matter	6.00	4.00	.....	.....	.....
7135	.....	20.60	.....	Bn	.....	.....	1.26	.....	1.26	.....	5.09	1.02
.....	.....	19.60	.....	.....	.....	1.20	.....	Animal Matter	1.20	4.00	.....	.....
7138	.....	15.65	.....	.....	4.65	.....	2.81	.....	7.46	.....	.....	.....
.....	.....	15.00	Bn	.....	5.00	.....	3.00	Animal Matter	8.00	.....	.....	.....
7130	.....	8.60	.....	.....	2.17	.....	3.01	.....	5.18	2.21	.....	0.87
.....	.....	8.00	Bn, Super	.....	1.50	.....	3.50	Animal Matter	5.00	2.00	.....	.....

Lab. No.	NAME AND ADDRESS OF MANUFACTURER OR DEALER, AND NAME OF BRAND	FROM WHOM OBTAINED	Value per ton
	Western Meat Company, (Continued) San Francisco, Cal.		
7134	Special.....	B. L. Byer, Upland.....	39.04
7151	Special..... <i>Guaranteed</i>	B. L. Byer, Upland.....	45.04 37.60
7288	Special..... <i>Guaranteed</i>	B. J. Mather, Nuevo.....	34.54 32.00
7328	Special.....	W. M. Baird, Duarte.....	56.93
7330	Special.....	W. M. Baird, Duarte.....	57.34
7334	Special..... <i>Guaranteed</i>	W. M. Baird, Duarte.....	56.74 57.60
7126	Superphosphate..... <i>Guaranteed</i>	B. L. Byer, Upland.....	23.37 21.60
7155*	Tankage Diamond E..... <i>Guaranteed</i>	B. L. Byer, Upland.....	45.91 45.60
7074*	Tankage..... <i>Guaranteed</i>	J. Henry Reynolds, Redlands.....	40.20 38.40
7069*	Tankage.....	E. L. Koethen, Riverside.....	43.06
7099*	Tankage.....	B. L. Byer, Upland.....	48.19
7100*	Tankage.....	B. L. Byer, Upland.....	41.86
7125*	Tankage.....	B. L. Byer, Upland.....	45.99
7156*	Tankage..... <i>Guaranteed</i>	B. L. Byer, Upland.....	44.81 42.18
7143*	Tankage..... <i>Guaranteed</i>	F. Manning, Glendora.....	49.34 48.73
7070*	Tankage.....	E. L. Koethen, Riverside.....	48.94
7131*	Tankage.....	B. L. Byer, Upland.....	50.36
7142*	Tankage.....	F. Manning, Glendora.....	49.08
7304*	Tankage.....	William Gosan, Upland.....	46.73
7342*	Tankage..... <i>Guaranteed</i>	F. A. Briggs, Riverside.....	47.39 48.00

*7155—81% fine.
*7074—69% fine.
*7069—76% fine.
*7099—76% fine.
*7100—88% fine.
*7125—81% fine.
*7156—67% fine.
*7143—68% fine.
*7070—71% fine.
*7131—76% fine.
*7142—62% fine.
*7304—70% fine.
*7342—73% fine.

PHOSPHORIC ACID

NITROGEN

POTASH

Lab. No.	Avail- able	In- soluble	Total	Guaranteed as derived from <i>Bn, Super</i>	In Am- monia Salts			Organic Guaranteed as derived from <i>Animal Matter</i>	From Sul- fate			CHLO- RIN
					In Ni- trates	.....	.....		Total	.....	.....
7134	4.16	4.24	8.40	.....	1.72	.....	3.13	.....	4.85	.....	2.84	1.67
7151	4.03	6.12	10.15	.....	0.58	.....	5.47	.....	6.05	1.91	.....	0.65
.....	8.00	<i>Bn, Super</i>	1.50	.....	3.50	<i>Animal Matter</i>	5.00	2.00	.....	.....
7288	9.25	.....	0.75	1.04	1.31	.....	3.10	.....	4.28	1.17
.....	8.00	<i>Bn, Super</i>	1.00	1.00	1.00	<i>Animal Matter</i>	3.00	4.00	.....	.....
7328	8.00	.....	.....	7.20	2.66	.....	9.86	.....	.....	.....
7330	8.10	.....	.....	6.95	2.97	.....	9.92	.....	.....	.....
7334	8.20	.....	.....	6.59	3.18	.....	9.77	.....	.....	.....
.....	8.00	<i>T</i>	8.00	2.00	.....	<i>T</i>	10.00	.....	.....	.....
7126	19.48	0.32	19.80	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	18.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
7155	17.70	.....	.....	.....	5.14	.....	5.14	.....	.....	.....
.....	18.00	.....	.....	.....	5.00	.....	5.00	.....	.....	.....
7074	4.70	.....	.....	.....	7.20	.....	7.20	.....	.....	.....
.....	4.00	.....	.....	.....	7.00	.....	7.00	.....	.....	.....
7069	14.80	.....	.....	.....	5.27	.....	5.27	.....	.....	.....
7099	12.60	.....	.....	.....	6.89	.....	6.89	.....	.....	.....
7100	14.20	.....	.....	.....	5.17	.....	5.17	.....	.....	.....
7125	16.25	.....	.....	.....	5.52	.....	5.52	.....	.....	.....
7156	15.99	.....	.....	.....	5.36	.....	5.36	.....	.....	.....
.....	13.75	.....	.....	.....	5.35	.....	5.35	.....	.....	.....
7143	16.20	.....	.....	.....	6.23	.....	6.23	.....	.....	.....
.....	16.13	.....	.....	.....	6.12	.....	6.12	.....	.....	.....
7070	8.10	.....	.....	.....	8.17	.....	8.17	.....	.....	.....
7131	8.65	.....	.....	.....	8.33	.....	8.33	.....	.....	.....
7142	8.10	.....	.....	.....	8.20	.....	8.20	.....	.....	.....
7304	7.99	.....	.....	.....	7.76	.....	7.76	.....	.....	.....
7342	8.05	.....	.....	.....	7.86	.....	7.86	.....	.....	.....
.....	8.00	.....	.....	.....	8.00	.....	8.00	.....	.....	.....

REPORT OF ANALYSIS

Available phosphoric acid is not determined in bone, meal, tankage, and Thomas phosphate powder, unless requested. The fineness of these materials is determined, fine and medium bone being separated by a sieve of 50 meshes to the inch; tankage by a 25-mesh sieve; and Thomas phosphate powder by a 100-mesh sieve.

Nitrogen in ammonium salts, will, in some cases, be found reported when nitrogen in this form is not guaranteed. In some of such cases this form of nitrogen is produced by conversion of organic nitrogen during process of manufacture, and is not to be considered a deviation from guaranty of materials used. Guanos carry more or less nitrogen in nitrates and ammonium salts, and when any appreciable quantity of guano is used the manufacturer should take into account the fact that some nitrogen will show as nitrates and ammonium salts. The failure to take this into consideration may account for the appearance of these forms of nitrogen in some samples in which only organic nitrogen was guaranteed.

The percentage of chlorin is given when it exceeds 0.50 per cent. It is a matter of only technical interest whether chlorin present is from muriate of potash, kainite, or from common salt that may be in some of the materials used. If a manufacturer uses sulfate of potash and a tankage with it containing a large amount of chlorin, from a practical standpoint he has changed the quality of his fertilizer just as much as if he had used muriate of potash instead of sulfate of potash. Chlorin from all other sources has the same effect as if from muriate of potash. However, if muriate of potash is found when sulfate is guaranteed, the fact will be published.

The following abbreviations are used in the tables: Bat G, = bat guano, Bl = blood, Bn = bone, Fs = fish, G = guano, H = hoof, Min. Phos = mineral phosphate, Super = superphosphates, T = tankage, CSM = cotton seed meal.

Guarantees are entered in italics. Deficiencies greater than those allowed by law are entered in bold faced type.

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